

[54] **DEVICE TO CONTROL INTRODUCTION OF  
DIFFRACTED BEAM BY MEANS OF  
DIFFRACTION ELEMENT**

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[30] **Foreign Application Priority Data**

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355/1

[58] Field of Search ..... 354/53-57,  
354/60 L, 23 R, 59; 355/1

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

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[57] **ABSTRACT**

According to the present invention in the image forming light path a direction-selective diffraction element is provided in such a manner that the image forming beam having entered into said diffraction element is diffracted by means of the diffraction grating structure of said diffraction element and divided into a plurality of beams, whereby at least one of the diffracted beams is led to a photo detecting device while the not diffracted beam is made use of as the image forming beam.

14 Claims, 30 Drawing Figures

